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Natural Resources Conservation Service

Idaho Basin Outlook Report March 1, 2000

Basin Outlook Reports
and
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Internet Web Address
http://idsnow.id.nrcs.usda.gov/

How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

IDAHO WATER SUPPLY OUTLOOK REPORT

March 1, 2000

SUMMARY

Winter may have gotten off to a slow start in the southern half of the State, but the past two months are making up the deficit. January and February combined has brought over 60% of the total precipitation that has fallen since October 1 to parts of southern Idaho. With just over a month of the average snow accumulation season still to come, Idaho's mountain snowpacks are approaching or are already at normal levels across the State. Reservoir storage remains bright with all major storage facilities at 50-85% full. Streamflow projections increased from last month and now range from 70-110% of average and should provide adequate water supplies for Idaho's numerous water users. Mother Nature may end up bringing Idaho just the right amount of moisture: not too much and not too little. Stay tuned, and we'll see if the same holds true during the snow melt season.

SNOWPACK

Snowpacks continued to improve across southern Idaho as result of above normal precipitation. Snowpacks are now about 80-105% of average across the State, even for the southern Idaho basins that were half of normal on January 1. The lowest snowpacks are 80-85% of average in the Big Lost, Little Lost, Camas-Beaver Creeks, Henrys Fork, Teton, and headwaters of the Bear River basin. Last year at this time, snowpacks were 110-170% of average and at record high levels in the west-central and northern Idaho mountains. Snowpacks in the more populated valleys are nearly non-existent across the State as a result of warm valley temperatures. Low to mid elevation snowpacks in the 4000-5000 foot elevation range of the west-central mountains have received rains, and in some areas allowed the rain water to pass through the snowpack without retaining the moisture in the snow or increasing in density.

PRECIPITATION

February precipitation increased from north to south and ranged from 96% of average in the Panhandle Region to 144% in the Wood and Lost river basins. Across southern and eastern Idaho precipitation ranged from 115% of average to 130%. The above normal precipitation across southern Idaho the past two months has improved the water year to date precipitation but has not overcome the dry deficit from the first three months of the water year. Water year to date precipitation is near normal in the west-central and northern parts of the State. In southern, eastern, Wood and Lost river basins, year to date precipitation is 75-85% of average. Warm valley temperatures have allowed precipitation to fall as rain and recharge soil moisture in the agricultural areas and low elevation rangeland. Springs and deep soil moisture have been recharged as a result of past several wet years, however, moisture in the root zone is at a deficit as a result of the last year's dry summer and fall. Light rains this winter and spring will help recharge soil moisture and improve rangeland conditions for this summer.

The March weather outlook provided by the National Weather Service calls for below normal temperatures for west central Idaho and normal precipitation across the State. The March-May 90-day forecast is for above normal precipitation and temperatures for most of the State. Average January monthly temperature in Pocatello was 29.1 degrees F., 5.8 degrees above normal. Average February monthly temperature in Boise was 41.7 degrees, 5.7 degrees above normal, 9th warmest February since records started. The 10th warmest February was recorded in 1991, while the 5th warmest February was recorded in 1992.

RESERVOIRS

Last year's abundant snowpacks that resulted in above normal summer streamflow volumes, also provided good reservoir carryover storage. Nearly all of Idaho's reservoirs and natural lakes are reporting above average storage levels and are 50-80% full. Releases are being made from Dworshak Reservoir and the Boise Reservoir System to maintain storage space for when the snow starts melting. Even with a below normal snowpack in parts of southern and eastern Idaho, the above normal reservoir carryover storage will help supplement the potential below normal summer streamflow volumes.

Note: NRCS reports reservoir information in terms of usable volumes, which includes both active, inactive, and in some cases dead storage. Other operators may report reservoir contents in different terms. For additional information, see the reservoir definitions in the back of this report.

STREAMFLOW

Streamflow forecasts generally increased across most of Idaho as a result of near to above average precipitation in February. Projected summer runoff volumes range from 85-110% of average for streams in the west-central mountains to the Panhandle Region. The lowest forecasts in the State are in the 65-75% of average range for the Big Wood, Little Wood, Goose Creek (Oakley), Salmon Falls, Bruneau, Owyhee and Bear River basins. The Snake River at Heise is forecast at 86% of average while American Falls inflow is forecast at 81% of average.

RECREATION

Above normal precipitation in February brought plenty of new snow for skiers and snowmobilers, as well as improved opportunities for Idaho's summer water-based recreational activities. The potential for high flows still exists as with any year; however, river runners should be able to put on the river earlier then last year as a result of a potential shorter high water season due to the fact that snowpacks are only in the 85-100% of normal range. Last year at this time, snowpacks were 110-170% of average and at record high levels in the west-central and northern Idaho mountains. The above normal precipitation across the high desert streams of southern Idaho also helped to improve river-running opportunities and lengthen the boating season in these streams. River runners in these high desert streams should keep their eyes on the sky and hands on their paddles and be ready when the snow starts melting.

IDAHO SURFACE WATER SUPPLY INDEX (SWSI)
As of March1, 2000

The Surface Water Supply Index (SWSI) is predictive indicator of surface water availability within a watershed for the spring and summer water use season. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow. SWSI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry), with a value of zero indicating a median water supply as compared to historical occurrences.

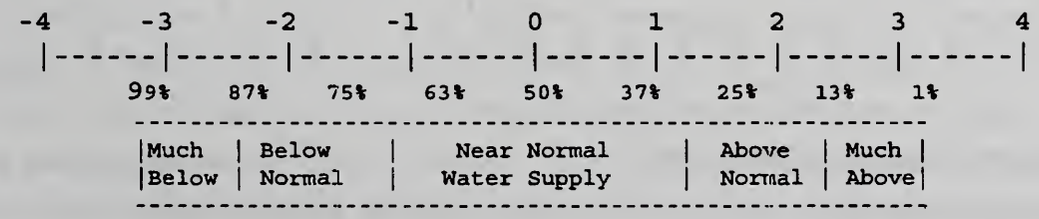
SWSI values are published January through May, and provide a more comprehensive outlook of water availability than either streamflow forecasts or reservoir storage figures alone. The SWSI index allows comparison of water availability between basins for drought or flood severity analysis. Threshold SWSI values have been established for most basins to indicate the potential for agricultural water shortages.

The following agencies and cooperators provide assistance in the preparation of the Surface Water Supply Index for Idaho:

US Department of Commerce, National Weather Service
US Bureau of Reclamation
Idaho Water Users Association
US Army Corps of Engineers
Idaho Department of Water Recourses
PacifiCorp

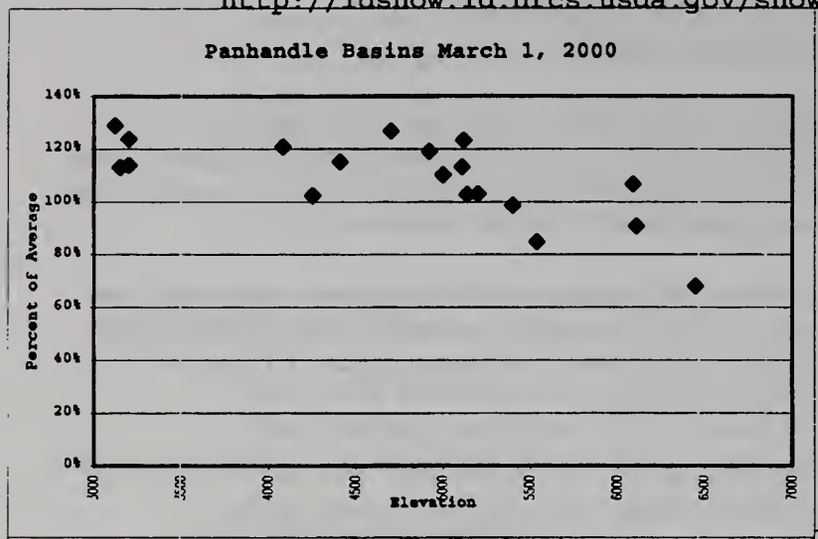
BASIN or REGION	*SWSI Value*	*Most Recent Year With Similar SWSI Value*	*Agricultural Water Supply Shortage May Occur When SWSI is Less Than*
PANHANDLE	0.4	1996	NA
CLEARWATER	1.3	1993	NA
SALMON	0.4	1993	NA
WEISER	0.0	1980	NA
PAYETTE	0.3	1993	NA
BOISE	0.1	1993	-2.6
BIG WOOD	-1.0	1981	-1.4
LITTLE WOOD	-0.4	1985	-2.1
BIG LOST	-0.8	1993	-0.8
LITTLE LOST	-0.3	1996	0.0
HENRYS FORK	0.1	1989	-3.3
SNAKE (AMERICAN FALLS)	0.7	1995	-2.0
OAKLEY	1.7	1996	0.0
SALMON FALLS	1.1	1987	0.0
BRUNEAU	-1.4	1973	NA
OWYHEE	-0.1	1998	NA
BEAR RIVER	-0.4	1999	-3.8

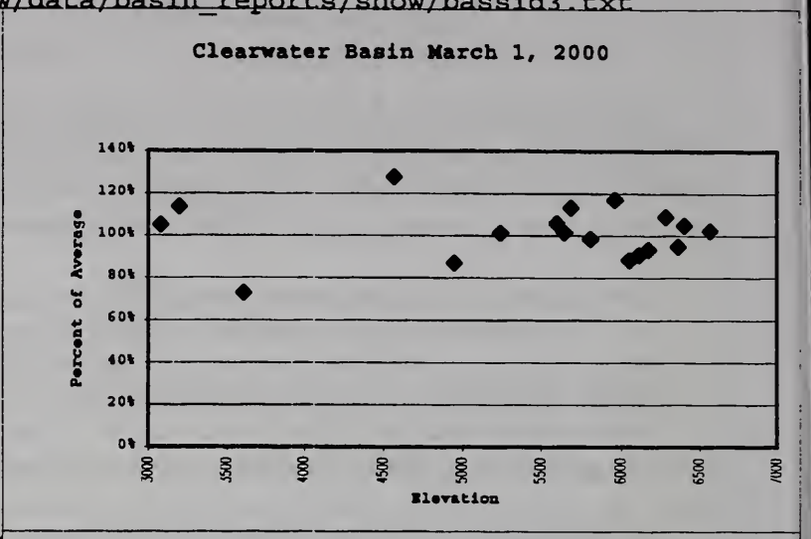
SWSI SCALE, PERCENT CHANCE OF EXCEEDANCE, AND INTERPRETATION

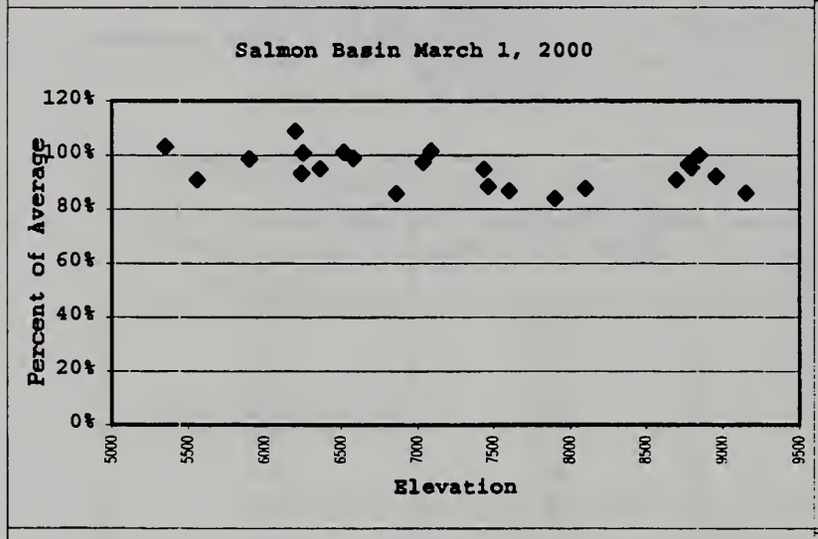


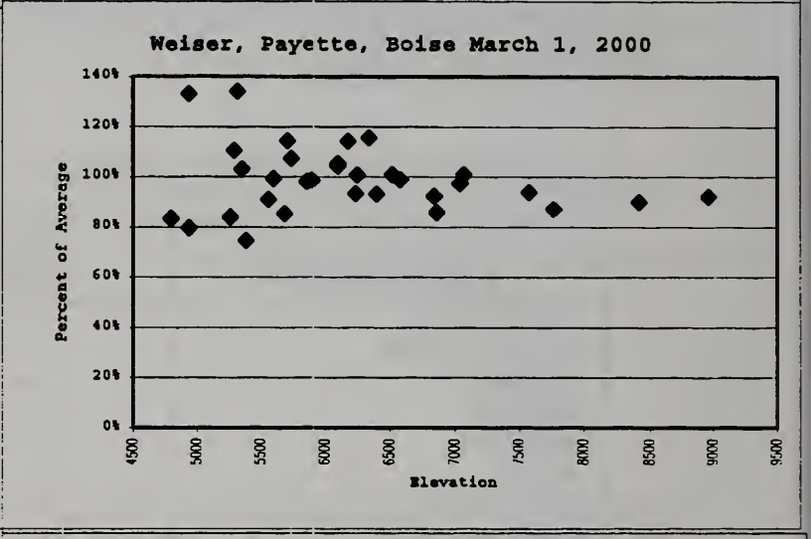
Note: The Percent Chance of Exceedance is an indicator of how often a range of SWSI values might be expected to occur. Each SWSI unit represents about 12% of the historical occurrences. As an example of interpreting the above scale, the SWSI can be expected to be greater than -3.0, 87% of the time and less than -3.0, 13% of the time. Half the time, the SWSI will be below and half the time above a value of zero. The interval between -1.5 and +1.5 described as "Near Normal Water Supply", represents three SWSI units and would be expected to occur about one third (36%) of the time.

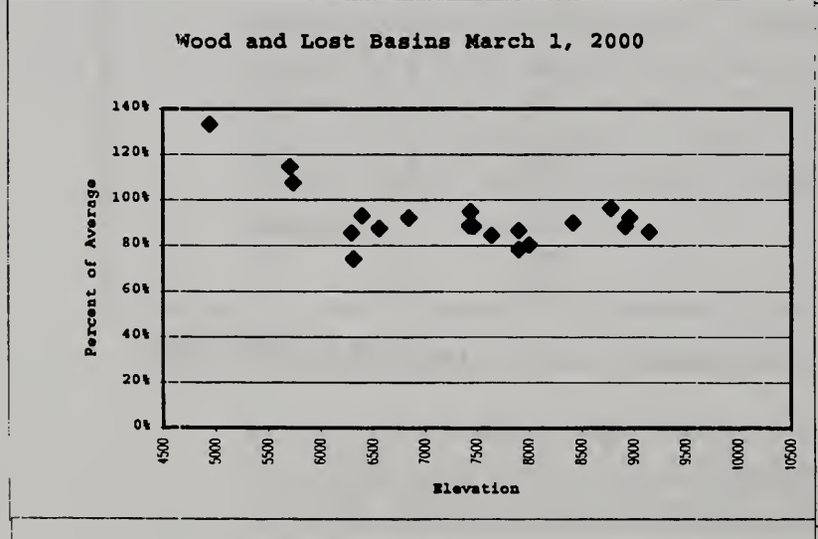
Snow Stations (Percent of Averge) vs. Elevation(feet) - Data from
http://idsnow.id.nrcs.usda.gov/snow/data/basin_reports/snow/bassid3.txt

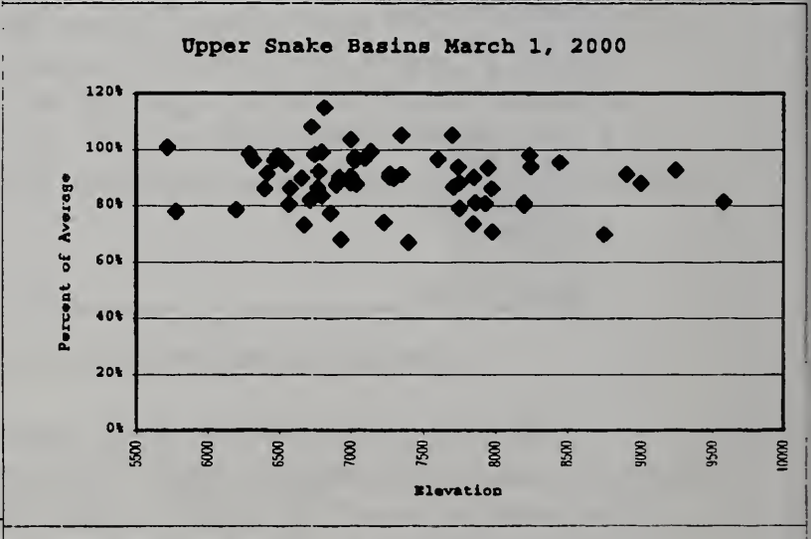


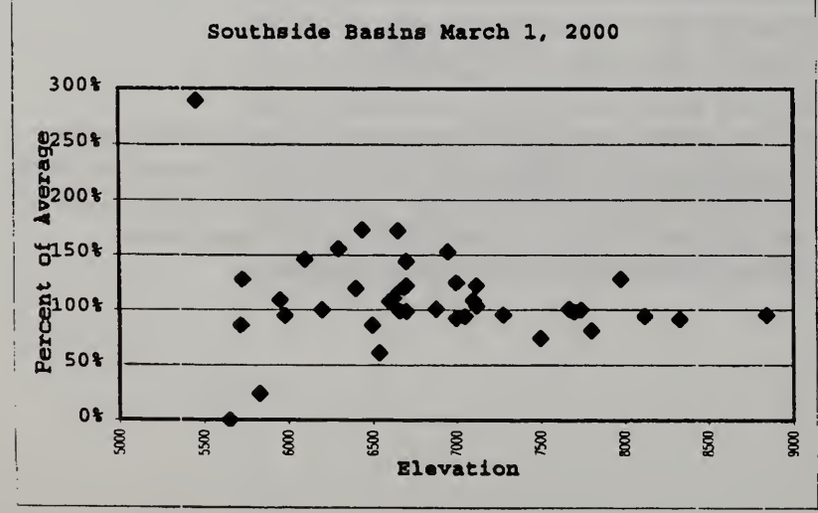


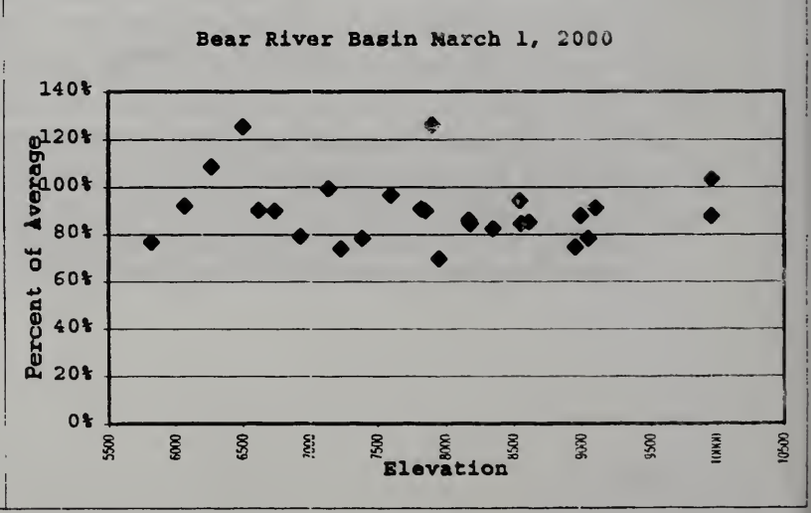




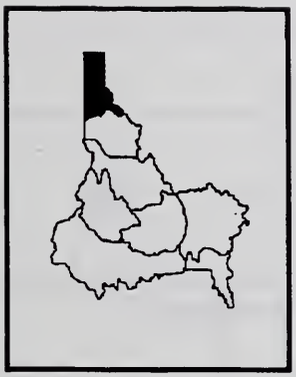


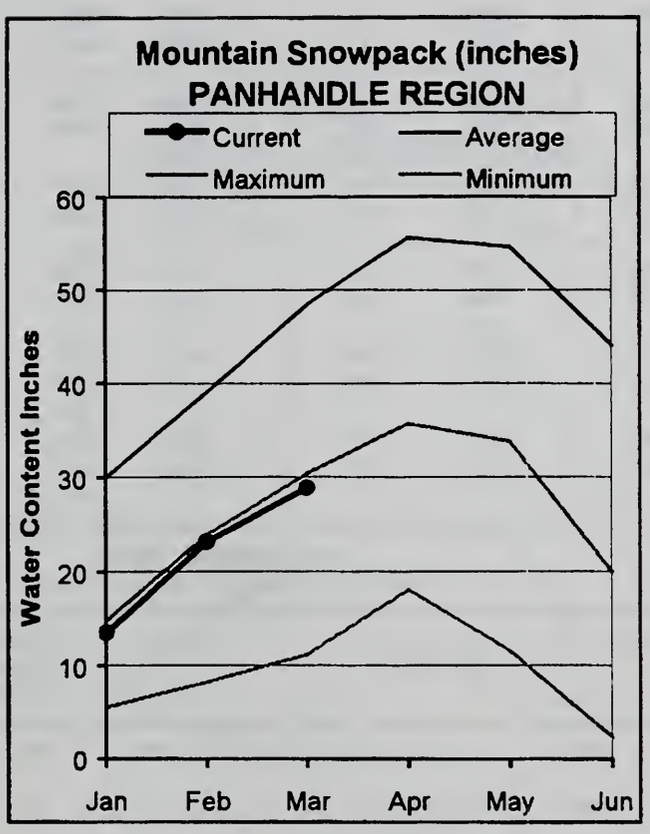


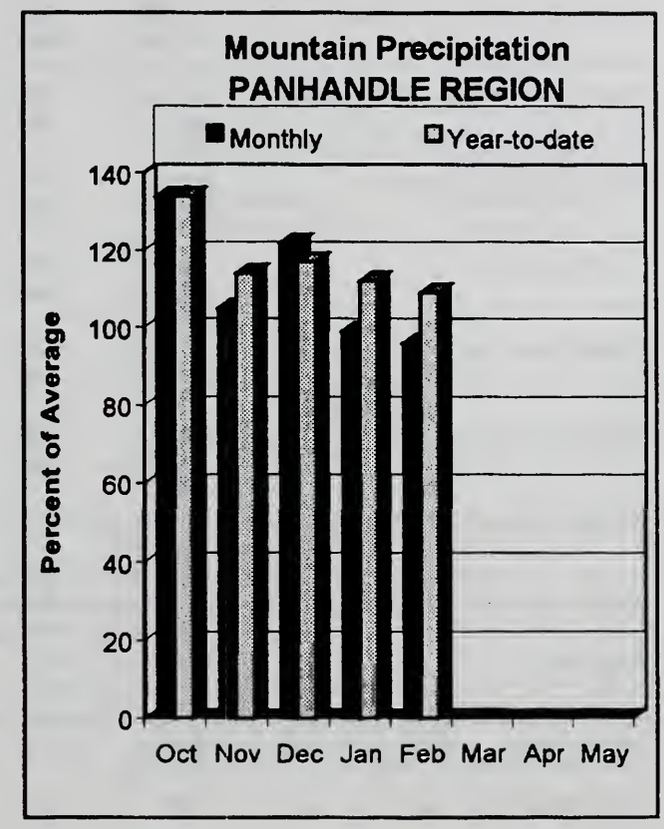




PANHANDLE REGION
MARCH 1, 2000







WATER SUPPLY OUTLOOK

Near normal precipitation fell in the Panhandle Region allowing snowpacks to maintain their near normal conditions. The highest snowpacks in the region are in the Rathdrum Creek/Hayden Lakes areas at 120% of average. The lowest snowpacks are 89% of average in the Moyie basin and Kootenai River above Bonners Ferry. The Panhandle Region and Clearwater basin have the highest water year to date precipitation in the state at 108% of average. Pend Oreille, Priest and Coeur D'Alene lakes are near their normal winter storage levels. Streamflow forecasts remain about the same as last month and range from 102% of average for the St. Joe River at Calder to 110% for the Priest River. Water supplies should be adequate for the numerous water users.

PANHANDLE REGION
Streamflow Forecasts - March 1, 2000

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
KOOTENAI at Leonia (1,2)	APR-JUL	6092	7122	7590	105	8058	9088	7199
	APR-SEP	6996	8182	8720	105	9258	10444	8275
CLARK FK at Whitehorse Rpds (1,2)	APR-JUL	7835	9805	10700	91	11595	13565	11730
	APR-SEP	8647	10815	11800	91	12785	14953	12910
PRIEST near Priest River (1,2)	APR-JUL	761	857	900	111	943	1039	812
	APR-SEP	801	907	955	110	1003	1109	865
COEUR D'ALENE at Enaville	APR-JUL	659	762	833	108	904	1007	769
	APR-SEP	700	807	880	109	953	1060	809
ST.JOE at Calder	APR-JUL	972	1096	1180	101	1264	1388	1169
	APR-SEP	1045	1173	1260	102	1347	1475	1237
SPOKANE near Post Falls (2)	APR-JUL	2249	2583	2810	107	3037	3371	2627
	APR-SEP	2300	2645	2880	106	3115	3460	2720
SPOKANE at Long Lake	APR-JUL	2460	2847	3110	107	3373	3760	2905
	APR-SEP	2643	3052	3330	107	3608	4017	3128

PANHANDLE REGION
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HUNGRY HORSE	3451.0	2428.0	2281.0	2205.0
FLATHEAD LAKE	1791.0	712.0	638.6	881.0
NOXON RAPIDS	335.0	326.1	323.9	298.1
PEND OREILLE	1561.3	711.5	918.3	798.0
COEUR D'ALENE	238.5	124.5	163.5	149.1
PRIEST LAKE	119.3	50.0	58.2	54.6

PANHANDLE REGION
Watershed Snowpack Analysis - March 1, 2000

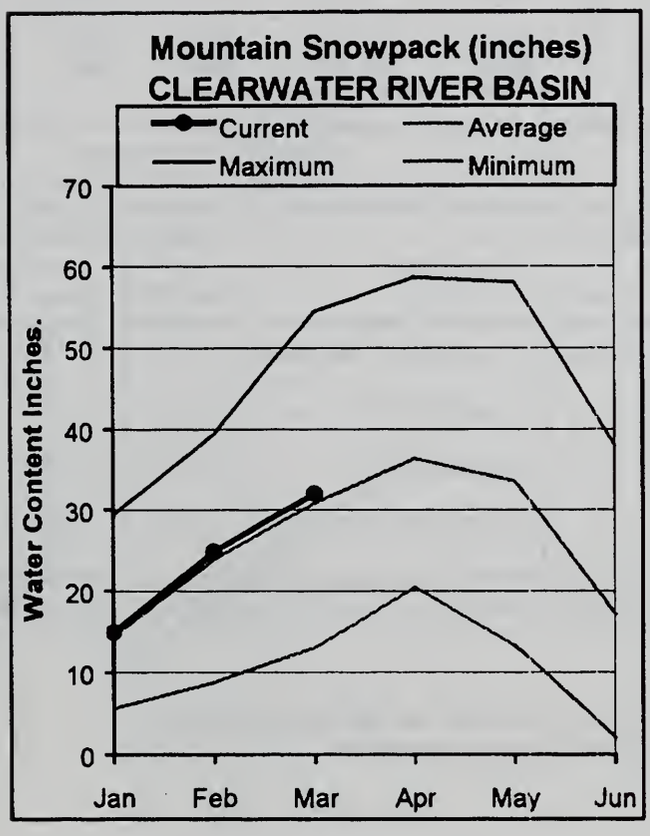
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Kootenai ab Bonners Ferry	29	63	89
Moyie River	10	60	85
Priest River	4	62	109
Pend Oreille River	94	73	93
Rathdrum Creek	5	79	131
Hayden Lake	2	81	118
Coeur d'Alene River	9	77	109
St. Joe River	4	73	99
Spokane River	18	77	111
Palouse River	2	82	115

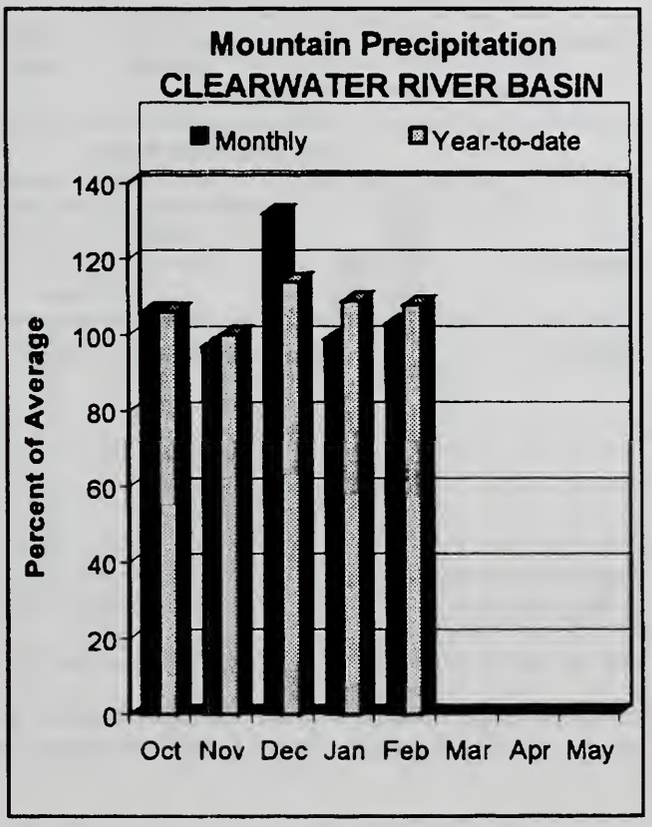
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

CLEARWATER RIVER BASIN
MARCH 1, 2000





WATER SUPPLY OUTLOOK

Snowpack levels are normal in the Clearwater basin, ranging from 93% of average in the Lochsa basin to 115% in the Palouse basin. Overall, the Clearwater basin is 102% of average. February precipitation was 103% of average and stands at 108% of average since October 1. Dworshak Reservoir is 66% of capacity, which is slightly above normal, and is being drafted slightly. Projected streamflows are 104% of average for Dworshak Reservoir inflow and 105% for the Clearwater at Spalding. The Snake River below Lower Granite Dam is forecast at 93% of average. Water supplies will be plentiful again, and river runners should have a good season after the peak flows have subsided.

CLEARWATER RIVER BASIN
Streamflow Forecasts - March 1, 2000

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
DWORSHAK RESV INFLOW (1,2)	APR-JUL	2153	2598	2800	104	3002	3447	2687
	APR-SEP	2301	2761	2970	104	3179	3639	2858
CLEARWATER at Orofino (1)	APR-JUL	4011	4677	4980	105	5283	5949	4729
	APR-SEP	4155	4867	5190	104	5513	6225	4990
CLEARWATER at Spalding (1,2)	APR-JUL	6312	7445	7960	105	8475	9608	7618
	APR-SEP	6620	7810	8350	104	8890	10080	8051

CLEARWATER RIVER BASIN
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
DWORSHAK	3468.0	2294.2	1875.6	2163.0

CLEARWATER RIVER BASIN
Watershed Snowpack Analysis - March 1, 2000

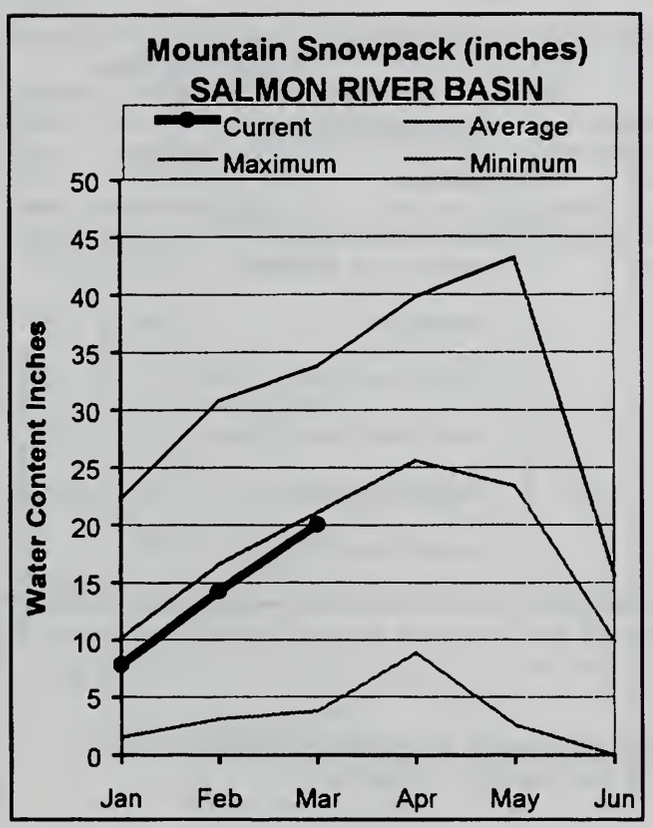
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
North Fork Clearwater	9	72	104
Lochsa River	3	67	93
Selway River	5	78	101
Clearwater Basin Total	17	73	102

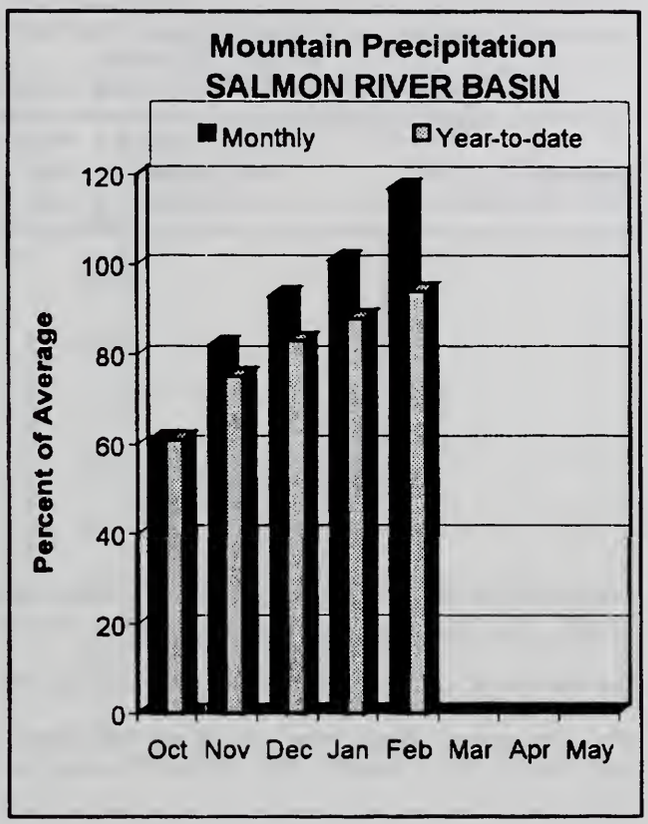
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be effected by upstream water management.

SALMON RIVER BASIN
MARCH 1, 2000





WATER SUPPLY OUTLOOK

Monthly precipitation has increased each month this water year from 60% of average falling in October to 117% in February. Water year to date precipitation has also improved and is now 94% of average. February precipitation ranged from 150% of average in the Little Salmon basin to only 80% along the Idaho/Montana border. Snowpacks increased the most in the Little Salmon basin, up 15 percentage points to 97% of average while the Lemhi increased 3 percentage points to 96%. The Middle Fork Salmon River snowpack is 90% of average while the Salmon basin as a whole is 96%. Streamflow forecasts call for 96% of average for the Salmon River above Salmon and 98% for the Salmon River at White Bird. River runners should have a good season. The near normal snowpacks should provide a shorter high water season and allow boaters to put on the river earlier than last year while also extending the boating season through the summer months.

SALMON RIVER BASIN
Streamflow Forecasts - March 1, 2000

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SALMON at Salmon (1)	APR-JUL	611	762	830	96	898	1049	869
	APR-SEP	726	893	969	95	1045	1212	1019
SALMON at White Bird (1)	APR-JUL	4437	5388	5820	98	6252	7203	5956
	APR-SEP	5020	6071	6549	99	7027	8078	6602

SALMON RIVER BASIN
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

SALMON RIVER BASIN
Watershed Snowpack Analysis - March 1, 2000

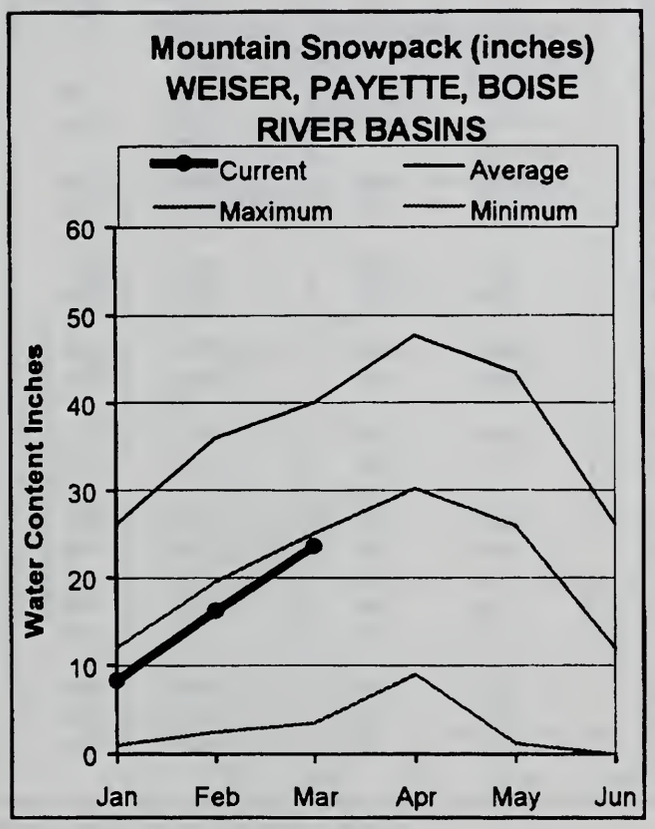
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Salmon River ab Salmon	10	70	97
Lemhi River	10	78	96
Middle Fork Salmon River	3	65	90
South Fork Salmon River	3	64	94
Little Salmon River	4	60	97
Salmon Basin Total	29	68	96

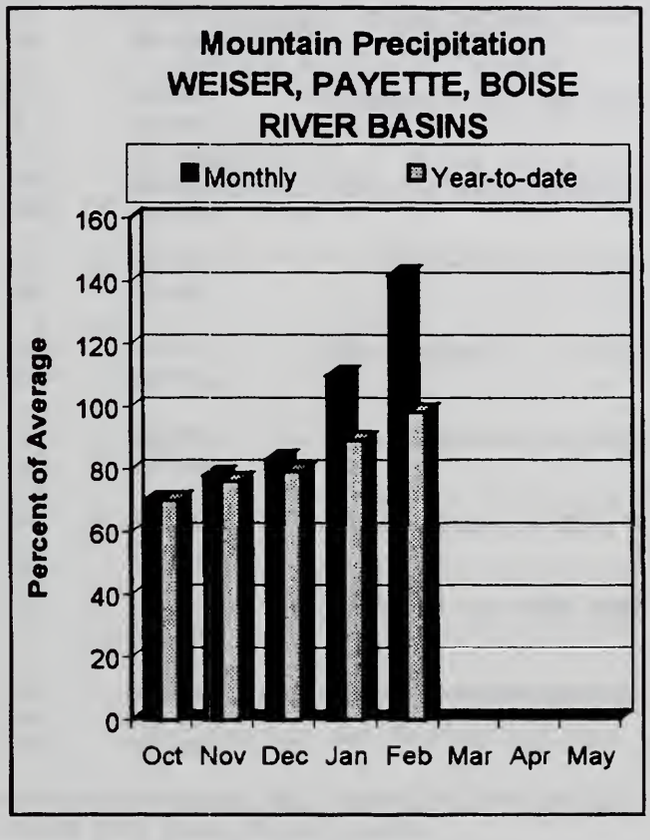
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

WEISER, PAYETTE, BOISE RIVER BASINS MARCH 1, 2000





WATER SUPPLY OUTLOOK

February mountain precipitation was heaviest, 160% of average, in the Weiser and North Fork Payette basins and lightest, 130%, in the South Fork Boise area. Overall, February precipitation was 142% of average, the highest monthly percentage since February 1999, when precipitation was 234% of average. Snowpack percentages increased the most in the low-mid elevation basins of Mann Creek, Weiser, and Canyon Creek basins. Elsewhere, snowpacks increased 5-12 percentage points from last month and are now near normal. Reservoir storage remains in good shape with both the Payette and Boise systems at about 3/4 full. Volumetric streamflow forecasts increased from last month and now call for 102% of average for the Payette River near Horseshoe Bend and 87% for the Boise River near Boise. Water supplies will be adequate for the many diverse water users. According to the U.S. Bureau of Reclamation, the outflow from Lucky Peak Reservoir will soon be increased to maintain adequate space in the reservoirs for the projected snowmelt runoff.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts - March 1, 2000

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ====== Wetter ====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
WEISER nr Weiser (1)	APR-SEP	222	355	415	100	475	608	415
SF PAYETTE at Lowman	APR-JUL	342	387	418	97	449	494	432
	APR-SEP	387	438	473	97	508	559	488
DEADWOOD RESERVOIR Inflow (1,2)	APR-JUL	96	116	126	93	136	156	135
	APR-SEP	101	123	133	93	143	165	143
LAKE FORK PAYETTE near McCall	APR-JUL	70	79	85	101	91	99	84
	APR-SEP	73	82	88	101	94	103	88
NF PAYETTE nr Cascade (1,2)	APR-JUL	372	470	515	104	560	658	496
	APR-SEP	396	502	550	103	598	704	533
NF PAYETTE nr Banks (2)	APR-JUL	529	622	685	106	748	841	648
	APR-SEP	561	660	728	106	796	895	690
PAYETTE nr Horseshoe Bend (1,2)	APR-JUL	1238	1518	1645	102	1772	2052	1618
	APR-SEP	1336	1641	1780	101	1919	2224	1755
BOISE near Twin Springs (1)	APR-JUL	419	519	565	90	611	711	631
	APR-SEP	454	563	613	89	663	772	686
SF BOISE at Anderson Ranch Dam (1,2)	APR-JUL	311	414	460	85	506	609	544
	APR-SEP	332	441	490	84	539	648	582
MORES CREEK near Arrowrock Dam	APR-JUL	86	109	124	96	139	162	129
	APR-SEP	90	113	129	96	145	168	134
BOISE near Boise (1,2)	APR-JUN	815	1005	1092	86	1179	1369	1264
	APR-JUL	864	1116	1230	87	1344	1596	1421
	APR-SEP	941	1207	1328	87	1449	1715	1535

WEISER, PAYETTE, BOISE RIVER BASINS
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MANN CREEK	11.1	7.0	7.9	6.0
CASCADE	703.2	519.8	511.8	402.6
DEADWOOD	161.9	119.4	119.3	83.9
ANDERSON RANCH	464.2	378.4	363.4	275.5
ARROWROCK	286.6	238.8	231.6	228.4
LUCKY PEAK	293.2	126.6	125.9	119.7
LAKE LOWELL (DEER FLAT)	177.1	103.3	116.4	127.3

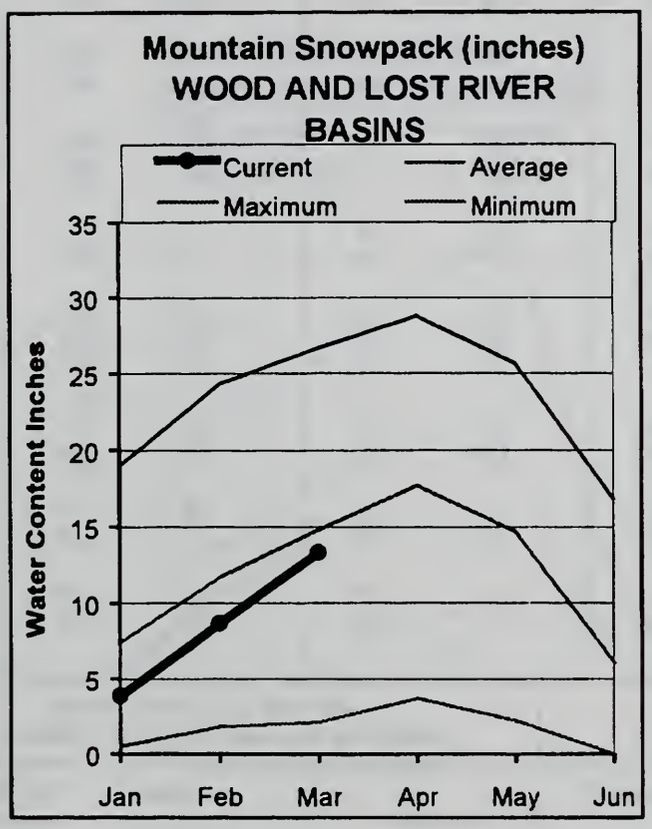
WEISER, PAYETTE, BOISE RIVER BASINS
Watershed Snowpack Analysis - March 1, 2000

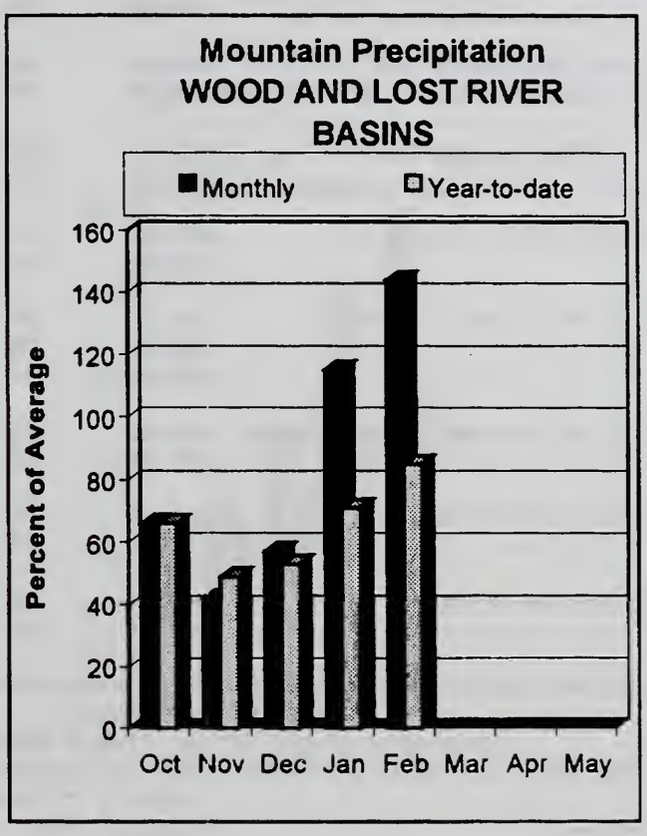
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Mann Creek	2	71	122
Weiser River	5	60	104
North Fork Payette	8	62	99
South Fork Payette	5	67	91
Payette Basin Total	14	65	97
Middle & North Fork Boise	6	70	94
South Fork Boise River	9	67	94
Mores Creek	4	67	104
Boise Basin Total	15	68	97
Canyon Creek	2	74	121

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

WOOD and LOST RIVER BASINS
MARCH 1, 2000





WATER SUPPLY OUTLOOK

For the second month in a row, these central Idaho basins that had the lowest snowpacks in the State on January 1 got just what they needed —well above average snowfall in January and February. Similar to January's precipitation, February precipitation was the greatest in the Camas Creek basin, 170% of average, and lowest in the headwaters of the Little Lost basin, 120%. Snowpacks also increased 10-20 percentage points and now range from 104% of average in Camas Creek to 86% in the Little Wood and Big Lost basins. Reservoir storage is at or above average in for Magic, Little Wood, and Mackay reservoirs. The precipitation received in January and February accounts for over 60% of the total amount received this water year. As a result, streamflow forecasts have also increased and now range from 65% for the Big Wood River near Bellevue to 97% for the Little Lost River near Howe. The water supply situation has improved dramatically in the past two months, and water supplies should be adequate in these basins.

WOOD AND LOST RIVER BASINS
Streamflow Forecasts - March 1, 2000

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BIG WOOD at Hailey (1)	APR-JUL	119	163	186	73	210	268	255
	APR-SEP	141	191	216	75	243	306	289
BIG WOOD near Bellevue	APR-JUL	69	97	119	65	143	182	183
	APR-SEP	76	105	128	65	153	193	197
CAMAS CREEK near Blaine	APR-JUL	53	71	85	83	100	124	102
	APR-SEP	54	72	86	84	101	125	103
BIG WOOD below Magic Dam (2)	APR-JUL	122	171	205	70	239	288	295
	APR-SEP	131	184	220	71	256	309	310
LITTLE WOOD near Carey (2)	MAR-JUL	42	62	76	76	90	110	100
	MAR-SEP	46	68	82	76	96	118	108
BIG LOST at Howell Ranch	APR-JUN	82	104	119	84	134	156	141
	APR-JUL	96	129	152	84	175	208	181
	APR-SEP	111	149	174	85	199	237	206
BIG LOST below Mackay Reservoir (2)	APR-JUL	71	102	124	82	146	177	152
	APR-SEP	88	124	148	80	172	208	184
LITTLE LOST blw Wet Creek	APR-JUL	21	26	29	93	32	36	31
	APR-SEP	26	32	36	93	40	46	39
LITTLE LOST nr Howe	APR-JUL	26	30	32	97	34	38	33
	APR-SEP	33	38	41	95	44	49	43

WOOD AND LOST RIVER BASINS
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MAGIC	191.5	111.6	134.8	96.0
LITTLE WOOD	30.0	21.7	21.2	17.7
MACKAY	44.4	32.1	35.5	31.9

WOOD AND LOST RIVER BASINS
Watershed Snowpack Analysis - March 1, 2000

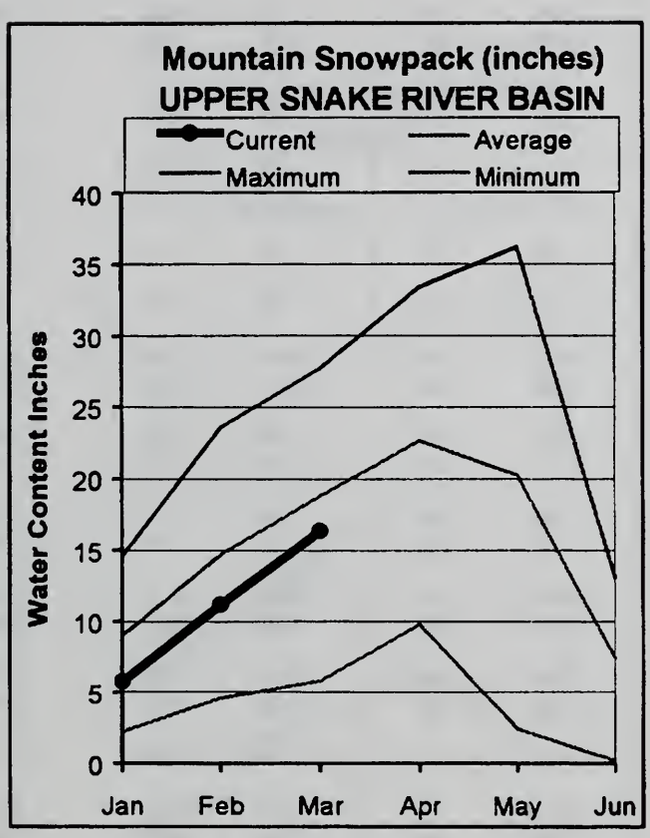
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Big Wood ab Magic	8	70	92
Camas Creek	5	65	104
Big Wood Basin Total	13	69	95
Little Wood River	5	62	86
Fish Creek	2	59	84
Big Lost River	7	61	87
Little Lost River	4	64	88
Birch-Medicine Lodge Cree	4	70	96

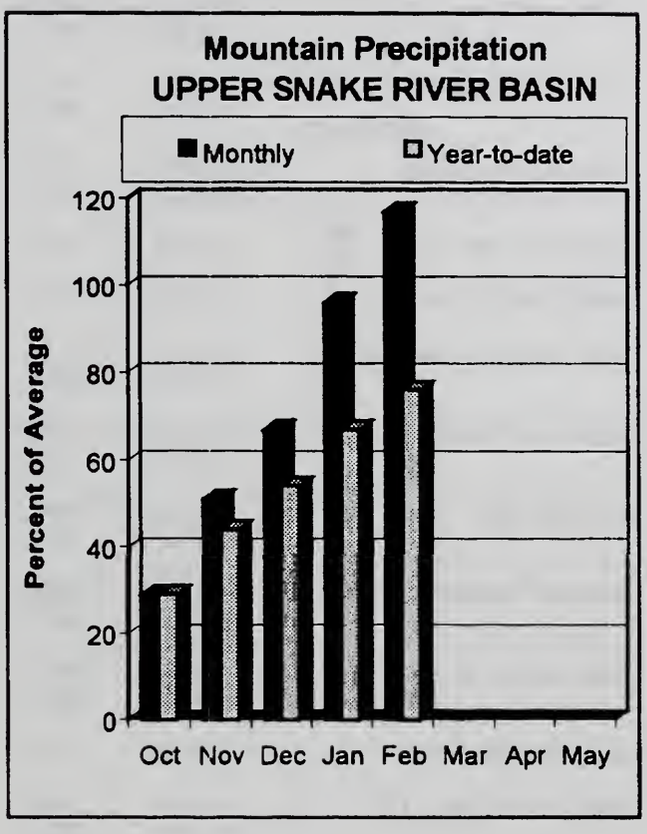
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

UPPER SNAKE RIVER BASIN
MARCH 1, 2000





WATER SUPPLY OUTLOOK

February precipitation varied across the upper Snake basin, ranging from near normal to 140% of average. The upper Snake and Bear River basins currently have the lowest water year to date precipitation in the State at 76% of average. Camas and Beaver creeks, tributaries to Mud Lake, increased 23 percentage points from last month to 81% of average. Elsewhere in the upper Snake basin, the snowpack increased 5-15 percentage points and now ranges from 85-95% of average. The Henrys Fork snowpack is 86% of average, the Snake River above Palisades Reservoir is 89%, while the entire basin above American Falls Reservoir is 90% of average. Combined reservoir storage for the 8 major reservoirs is 84% of capacity, 117% of average. American Falls Reservoir is already starting to fill in preparation for the coming agricultural season. Streamflow forecasts increased slightly from last month and now range from 80-95% of average. Even with a below normal snowpack, the above normal reservoir carryover storage will help supplement the potential below normal streamflows.

UPPER SNAKE RIVER BASIN
Streamflow Forecasts - March 1, 2000

Forecast Point	Forecast Period	<<== Drier == Future Conditions == Wetter ==>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
HENRYS FORK near Ashton (2)	APR-JUL	438	488	522	96	556	606	544
	APR-SEP	587	645	685	94	725	783	730
HENRYS FORK near Rexburg (2)	APR-JUL	897	1058	1167	95	1276	1437	1228
	APR-SEP	1116	1297	1420	92	1543	1724	1551
FALLS near Squirrel (1,2)	APR-JUL	267	321	345	95	369	423	364
	APR-SEP	339	395	420	97	445	501	432
TETON near Driggs	APR-JUL	115	140	158	104	176	201	152
	APR-SEP	155	186	207	104	228	259	199
TETON near St. Anthony	APR-JUL	270	327	366	97	405	462	377
	APR-SEP	334	399	443	97	487	552	457
SNAKE near Moran (1,2)	APR-SEP	556	679	735	85	791	914	869
PACIFIC CREEK at Moran	APR-SEP	101	122	136	82	150	171	166
SNAKE above Palisades (2)	APR-JUL	1747	1936	2065	89	2194	2383	2311
	APR-SEP	2026	2241	2387	89	2533	2748	2671
GREYS above Palisades	APR-JUL	201	240	267	80	294	333	333
	APR-SEP	236	280	310	80	340	384	388
SALT near Etna	APR-JUL	167	221	258	81	295	349	319
	APR-SEP	213	277	320	80	363	427	399
PALISADES RESERVOIR INFLOW (1,2)	APR-JUL	2133	2574	2775	86	2976	3417	3226
	APR-SEP	2467	2957	3180	85	3403	3893	3763
SNAKE near Heise (2)	APR-JUL	2424	2749	2970	86	3191	3516	3451
	APR-SEP	2824	3191	3440	85	3689	4056	4049
BLACKFOOT RESV INFLOW	APR-JUN	51	74	89	79	104	127	113
SNAKE nr Blackfoot (1,2)	APR-JUL	2782	3585	3950	89	4315	5118	4444
	APR-SEP	3552	4428	4825	88	5222	6098	5482
PORTNEUF at Topaz	MAR-JUL	52	62	69	80	76	86	86
	MAR-SEP	65	77	85	79	93	105	107
AMERICAN FALLS RESV INFLOW (1,2)	APR-JUL	1212	2084	2480	81	2876	3748	3066
	APR-SEP	1222	2221	2675	81	3129	4128	3303

UPPER SNAKE RIVER BASIN
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HENRYS LAKE	90.4	88.1	88.7	79.5
ISLAND PARK	135.2	111.5	112.7	109.3
GRASSY LAKE	15.2	12.5	13.1	11.0
JACKSON LAKE	847.0	653.5	623.4	481.0
PALISADES	1400.0	1247.1	1039.3	1063.1
RIRIE	80.5	46.1	45.4	36.7
BLACKFOOT	348.7	284.2	284.2	239.7
AMERICAN FALLS	1672.6	1414.6	1261.9	1277.0

UPPER SNAKE RIVER BASIN
Watershed Snowpeck Analysis - March 1, 2000

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Camas-Beaver Creeks	4	65	81
Henrys Fork-Falls River	12	65	86
Teton River	8	73	87
Henrys Fork above Rexburg	20	68	86
Snake above Jackson Lake	9	67	87
Gros Ventre River	3	66	79
Hoback River	6	77	87
Greys River	4	83	93
Salt River	5	85	98
Snake above Palisades	29	72	89
Willow Creek	7	74	95
Blackfoot River	5	81	92
Portneuf River	6	81	92
Snake abv American Falls	44	74	90

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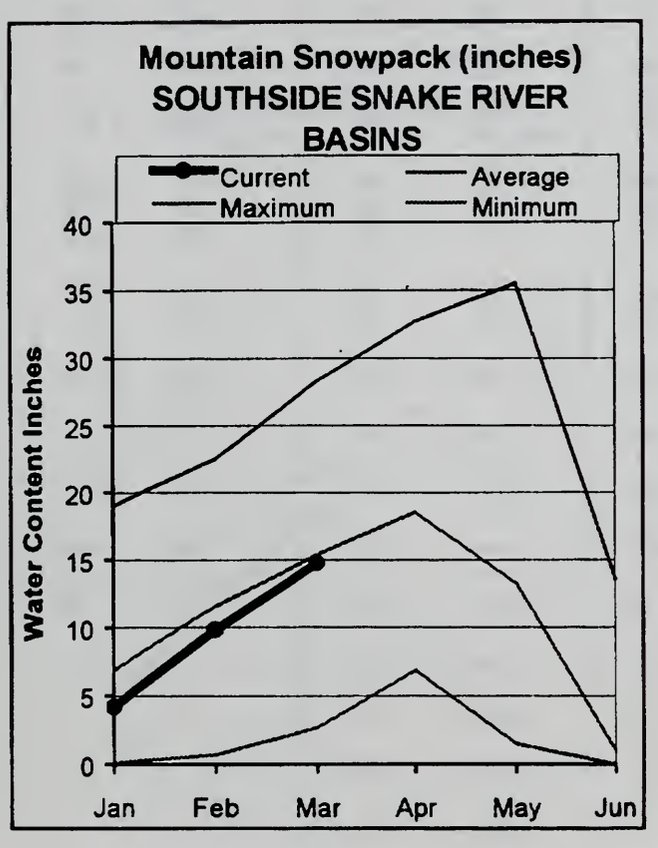
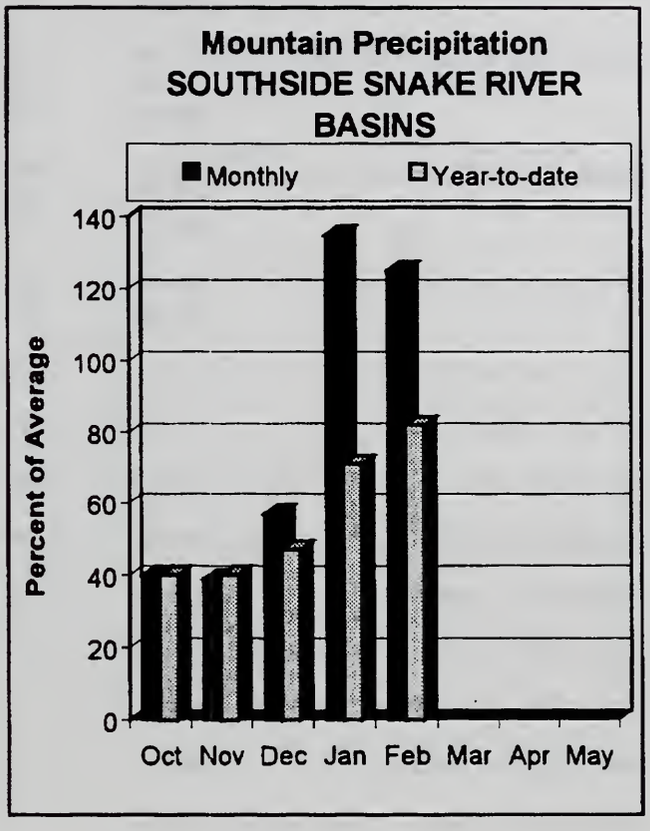
SOUTHSIDE SNAKE RIVER BASINS MARCH 1, 2000





WATER SUPPLY OUTLOOK

For the second month in a row, above normal precipitation fell across southern Idaho. February precipitation ranged from 100-150% of average and was 125% for this area as a whole. Combined, January and February precipitation accounts for 67% of the total precipitation that has fallen since October 1. Precipitation for the water year is 82% of average and has improved significantly since being 47% of average on December 31. The monthly survey by fixed wing airplane of the 18 aerial snow markers in the Owyhee/Malheur basins show that the Owyhee basin increased 20 percentage points from a month ago to 113% of average. The other basins in the region increased 10-15 percentage points and range from 91% of average in the Salmon Falls basin to 105% in the Raft River. Streamflow forecasts increased from last month and now range from 67% of average for the Owyhee River near Rome, OR, to 76% for the Oakley Reservoir inflow. Agricultural water users in these basins should have an adequate water supply even if streamflows are below normal. The reservoir carryover storage is near normal or above normal in these basins and will help overcome the deficit. The prospects of a good boating season have also improved with each passing storm. River runners should keep their eyes on the sky and be ready when the snow starts melting and the rivers start rising.

SOUTHSIDE SNAKE RIVER BASINS
Streamflow Forecasts - March 1, 2000

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
OAKLEY RESV INFLOW	MAR-JUL	15.9	21	25	76	29	36	33
	MAR-SEP	17.5	23	27	75	32	39	36
OAKLEY RESV STORAGE	MAR-31	42	44	44	134	45	46	33
	APR-30	45	48	49	130	51	53	38
	MAY-31	42	46	49	121	52	56	41
SALMON FALLS CREEK nr San Jacinto	MAR-JUN	44	57	66	77	77	93	86
	MAR-JUL	44	57	68	74	79	97	91
	MAR-SEP	47	61	71	74	82	101	96
SALMON FALLS RESV STORAGE	MAR-31	59	63	66	103	69	73	64
	APR-30	69	75	79	96	83	89	83
	MAY-31	71	81	87	94	94	103	93
BRUNEAU near Hot Springs	MAR-JUL	111	148	176	75	207	257	235
	MAR-SEP	114	152	181	74	213	264	246
OWYHEE near Gold Creek (2)	MAR-JUL	13.5	19.4	24	76	29	38	31
OWYHEE nr Owyhee (2)	APR-JUL	19.1	44	60	70	77	101	86
OWYHEE near Rome	MAR-JUL	237	309	363	67	422	516	545
OWYHEE RESV INFLOW (2)	MAR-SEP	304	382	440	74	502	600	595
SUCCOR CK nr Jordan Valley	MAR-JUL	5.6	11.4	15.4	108	19.4	25	14.3
SNAKE RIVER at King Hill (1,2)	APR-JUL			1940	67			2896
SNAKE RIVER near Murphy (1,2)	APR-JUL			2010	67			2980
SNAKE RIVER at Weiser (1,2)	APR-JUL			3780	69			5465
SNAKE RIVER at Hells Canyon Dam (1,2	APR-JUL			4400	72			6129
SNAKE blw Lower Granite Dam (1,2)	APR-JUL	12930	17929	20200	93	22471	27470	21650

SOUTHSIDE SNAKE RIVER BASINS
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
OAKLEY	74.5	39.8	45.1	28.7
SALMON FALLS	182.6	58.3	80.7	54.7
WILDHORSE RESERVOIR	71.5	48.5	55.6	33.0
OWYHEE	715.0	487.3	551.3	512.0
BROWNLEE	1419.3	1293.1	996.6	996.0

SOUTHSIDE SNAKE RIVER BASINS
Watershed Snowpack Analysis - March 1, 2000

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Raft River	6	94	105
Goose-Trapper Creeks	7	86	100
Salmon Falls Creek	8	90	91
Bruneau River	8	95	98
Owyhee Basin Total	20	66	113

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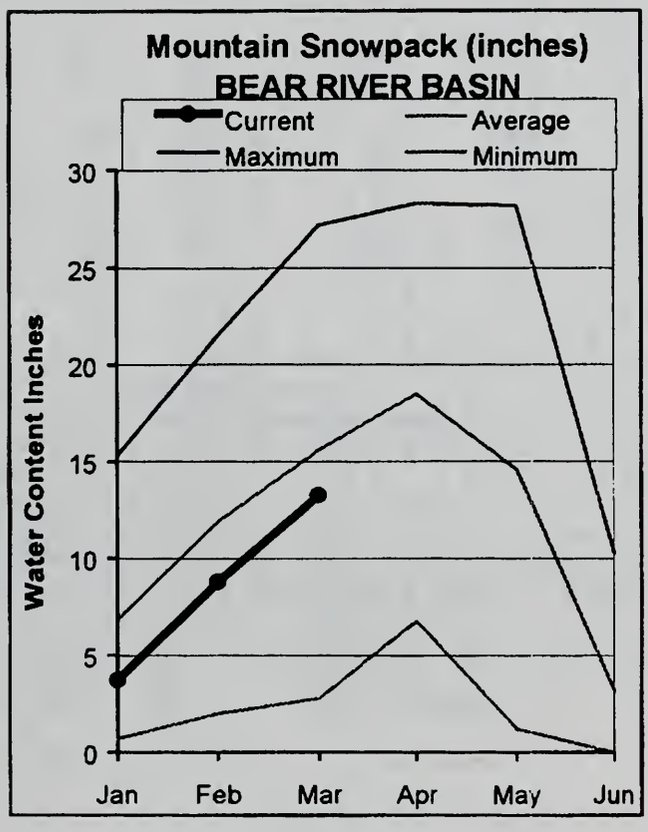
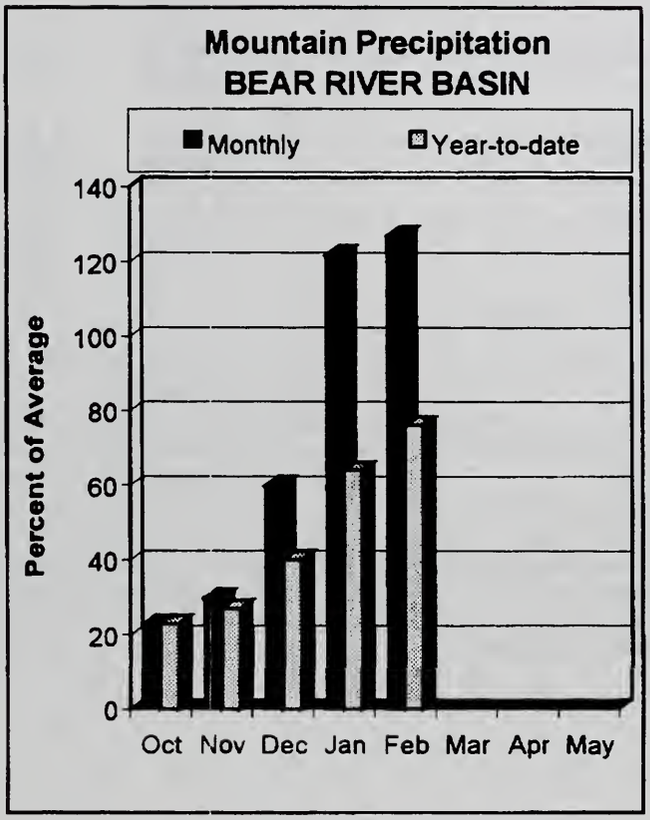
BEAR RIVER BASIN
MARCH 1, 2000





WATER SUPPLY OUTLOOK

Mother Nature may have gotten of to a slow start this water year, but monthly precipitation has increased each month starting with 20% of average precipitation in October to 127% in February. Precipitation for the water year remains near the lowest in the state at 76% of average. Snowpacks increased 10-20 percentage points during February and range from 86-90% of average in the Bear River and its tributaries. Reservoir storage is above average in Bear Lake and Montpelier Creek Reservoir, each are about 75% full. Streamflow forecasts remain below normal and the lowest in the state at 67-83% of average. However, water users should still have an adequate water supply this summer.

BEAR RIVER BASIN
Streamflow Forecasts - March 1, 2000

Forecast Point	Forecast Period	<<== Drier == Future Conditions == Wetter ==>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BEAR R nr Randolph, UT	APR-JUL	17.0	58	86	73	114	155	118
	APR-SEP	15.0	62	93	73	124	171	127
SMITHS FK nr Border, WY	APR-JUL	60	74	85	83	98	121	102
	APR-SEP	70	86	98	83	112	137	118
THOMAS FK nr WY-ID State Line (Disc.	APR-JUL	12.6	17.6	22	67	28	38	33
	APR-SEP	14.1	19.3	24	67	30	41	36
BEAR R blw Stewart Dam nr Montpelier	APR-JUL	96	158	200	69	242	304	288
	APR-SEP	113	183	230	70	277	347	327
MONTPELIER CK nr Montpelier (Disc)(2	APR-JUL	5.4	6.8	8.0	66	9.4	11.9	12.2
	APR-SEP	6.5	8.1	9.4	66	10.9	13.5	14.2
CUB R nr Preston	APR-JUL	25	32	36	77	41	47	47

BEAR RIVER BASIN
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BEAR LAKE	1421.0	1119.6	1123.0	985.0
MONTPELIER CREEK	4.0	2.9	2.5	1.6

BEAR RIVER BASIN
Watershed Snowpack Analysis - March 1, 2000

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Smiths & Thomas Forks	4	81	88
Bear River ab WY-ID line	14	82	86
Montpelier Creek	2	76	83
Mink Creek	4	83	90
Cub River	3	81	89
Bear River ab ID-UT line	25	81	87
Malad River	3	93	98

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Streamflow Adjustment List For All Forecasts Published In Idaho Basin Outlook Report Streamflow forecasts are projections of runoff volumes that would have occurred naturally without influences from upstream reservoirs or diversions. These values are referred to as natural or adjusted flows. To make these adjustments, changes in reservoir storage, diversions, and inter-basin transfers are added or subtracted from the observed (actual) streamflow volumes. The following list documents the adjustments made to each forecast point in this report. (Revised 1/2000).

Panhandle River Basins

KOOTENAI R AT LEONIA, ID
+ LAKE KOOCANUSA (STORAGE CHANGE)

CLARK FORK AT WHITEHORSE RAPIDS, ID
+ HUNGRY HORSE (STORAGE CHANGE)
+ FLATHEAD LAKE (STORAGE CHANGE)
+ NOXON RAPIDS RESV (STORAGE CHANGE)

PEND OREILLE LAKE INFLOW, ID
+ PEND OREILLE R AT NEWPORT, WA
+ HUNGRY HORSE (STORAGE CHANGE)
+ FLATHEAD LAKE (STORAGE CHANGE)
+ NOXON RAPIDS (STORAGE CHANGE
+ PEND OREILLE LAKE (STORAGE CHANGE)

PRIEST R NR PRIEST R, ID
+ PRIEST LAKE (STORAGE CHANGE)

COEUR D'ALENE R AT ENAVILLE, ID - No Corrections

ST. JOE R AT CALDER, ID - No Corrections

SPOKANE R NR POST FALLS, ID
+ COEUR D'ALENE LAKE (STORAGE CHANGE)

SPOKANE R AT LONG LAKE, WA
+ COEUR D'ALENE LAKE (STORAGE CHANGE)
+ LONG LAKE, WA (STORAGE CHANGE)

Clearwater River Basin

DWORSHAK RESERVOIR INFLOW, ID
+ DWORSHAK RESV (STORAGE CHANGE)
- CLEARWATER R AT OROFINO, ID
+ CLEARWATER R NR PECK, ID

CLEARWATER R AT OROFINO, ID - No Corrections

CLEARWATER R AT SPALDING, ID
+ DWORSHAK RESV (STORAGE CHANGE)

Salmon River Basin

SALMON R AT SALMON, ID - No Corrections

SALMON R AT WHITE BIRD, ID - No Corrections

Weiser, Payette, Boise River Basins

WEISER R NR WEISER, ID - No Corrections

SF PAYETTE R AT LOWMAN, ID - No Corrections

DEADWOOD RESERVOIR INFLOW, ID
+ DEADWOOD R BLW DEADWOOD RESV NR LOWMAN
+ DEADWOOD RESV (STORAGE CHANGE)

LAKE FORK PAYETTE RIVER NR MCCALL, ID – No Corrections

NF PAYETTE R AT CASCADE, ID
+ CASCADE RESV (STORAGE CHANGE)

NF PAYETTE R NR BANKS, ID
+ CASCADE RESV (STORAGE CHANGE)

PAYETTE R NR HORSESHOE BEND, ID
+ DEADWOOD RESV (STORAGE CHANGE)
+ CASCADE RESV (STORAGE CHANGE)

BOISE R NR TWIN SPRINGS, ID - No Corrections

SF BOISE R AT ANDERSON RANCH DAM, ID
+ ANDERSON RANCH RESV (STORAGE CHANGE)

BOISE R NR BOISE, ID
+ ANDERSON RANCH RESV (STORAGE CHANGE)
+ ARROWROCK RESV (STORAGE CHANGE)
+ LUCKY PEAK RESV (STORAGE CHANGE)

Wood and Lost River Basins

BIG WOOD R AT HAILEY, ID - No Corrections

BIG WOOD R NR BELLEVUE, ID - No Corrections

BIG WOOD R BLW MAGIC DAM NR RICHFIELD, ID
+ MAGIC RESV (STORAGE CHANGE)

LITTLE WOOD R NR CAREY, ID
+ LITTLE WOOD RESV (STORAGE CHANGE)

BIG LOST R AT HOWELL RANCH NR CHILLY, ID - No Corrections

BIG LOST R BLW MACKAY RESV NR MACKAY, ID
+ MACKAY RESV (STORAGE CHANGE)

LITTLE LOST R BLW WET CK NR HOWE, ID - No Corrections

LITTLE LOST R NR HOWE, ID - No Corrections (Disc)

Upper Snake River Basin

HENRYS FORK NR ASHTON, ID
+ HENRYS LAKE (STORAGE CHANGE)
+ ISLAND PARK RESV (STORAGE CHANGE)

HENRYS FORK NR REXBURG, ID
+ HENRYS LAKE (STORAGE CHANGE)
+ ISLAND PARK RESV (STORAGE CHANGE)
+ DIV FM HENRYS FK BTW ASHTON & ST. ANTHONY, ID
+ DIV FM HENRYS FK BTW ST. ANTHONY & REXBURG, ID
+ GRASSY LAKE (STORAGE CHANGE)

FALLS R ABV YELLOWSTONE CANAL NR SQUIRREL, ID
+ GRASSY LAKE (STORAGE CHANGE)

TETON R ABV SO LEIGH CK NR DRIGGS, ID - No Corrections

TETON R NR ST. ANTHONY, ID
- CROSS CUT CANAL
+ SUM OF DIVERSIONS ABV GAGE

SNAKE R NR MORAN, WY
+ JACKSON LAKE (STORAGE CHANGE)

PALISADES RESERVOIR INFLOW, ID
+ SNAKE R NR IRWIN, ID
+ JACKSON LAKE (STORAGE CHANGE)
+ PALISADES RESV (STORAGE CHANGE)

SNAKE R NR HEISE, ID
+ JACKSON LAKE (STORAGE CHANGE)
+ PALISADES RESV (STORAGE CHANGE)

BLACKFOOT RESVERVOIR INFLOW, ID
+ BLACKFOOT RIVER
+ BLACKFOOT RESERVOIR (STORAGE CHANGE
SNAKE R NR BLACKFOOT, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)
+ DIV FM SNAKE R BTW HEISE AND SHELLY GAGES
+ DIV FM SNAKE R BTW SHELLY AND BLACKFT, ID
PORTNEUF R AT TOPAZ, ID - No Corrections
AMERICAN FALLS RESERVOIR INFLOW, ID
+ ALL CORRECTIONS MADE FOR HENRYS FK NR REXBURG, ID
+ JACKSON LAKE (STORAGE CHANGE)
+ PALISADES RESV (STORAGE CHANGE)
+ DIV FM SNAKE R BTW HEISE AND SHELLY GAGES
+ DIV FM SNAKE R BTW SHELLY AND BLACKFT GAGES

Southside Snake River Basins

OAKLEY RESERVOIR INFLOW, ID
+ GOOSE CK ABV TRAPPER CK NR OAKLEY, ID
+ TRAPPER CK NR OAKLEY, ID
SALMON FALLS CK NR SAN JACINTO, NV - No Corrections
BRUNEAU R NR HOT SPRINGS, ID - No Corrections
OWYHEE R NR GOLD CK, NV
+ WILDHORSE RESV (STORAGE CHANGE)
OWYHEE R NR OWYHEE, NV
+ WILDHORSE RESV (STORAGE CHANGE)
OWYHEE R NR ROME, OR
+ WILDHORSE RESV (STORAGE CHANGE)
+ JORDAN VALLEY RESV (STORAGE CHANGE)
OWYHEE RESERVOIR INFLOW, OR
+ OWYHEE R BLW OWYHEE DAM, OR
+ OWYHEE RESV (STORAGE CHANGE)
+ DIV TO NORTH AND SOUTH CANALS
SUCCOR CK NR JORDAN VALLEY, OR - No Corrections
SNAKE R - KING HILL, ID - No Corrections
SNAKE R NR MURPHY, ID - No Corrections
SNAKE R AT WEISER, ID - No Corrections
SNAKE R AT HELLS CANYON DAM, ID
+ BROWNLEE RESV (STORAGE CHANGE)

Bear River Basin

BEAR R NR RANDOLPH, UT
+ SULPHUR CK RESV (STORAGE CHANGE)
+ CHAPMAN CANAL DIVERSION
+ WOODRUFF NARROWS RESV (STORAGE CHANGE)
SMITHS FORK NR BORDER, WY - No Corrections
THOMAS FORK NR WY-ID STATELINE - No Corrections (Disc)
BEAR R BLW STEWART DAM, ID
+ SULPHUR CK RESV (STORAGE CHANGE)
+ CHAPMAN CANAL DIVERSION
+ WOODRUFF NARROWS RESV (STORAGE CHANGE)
+ DINGLE INLET CANAL
+ RAINBOW INLET CANAL
MONTPELIER CK AT IRR WEIR NR MONTPELIER, ID (Disc)
+ MONTPELIER CK RESV (STORAGE CHANGE)
CUB R NR PRESTON, ID - No Corrections

RESERVOIR CAPACITY DEFINITIONS (Units in 1,000 acre-feet, KAF)
Different agencies use various definitions when reporting reservoir capacity and contents. Reservoir storage terms include dead, inactive, active, and surcharge storage. This table lists these volumes for each reservoir, and defines the storage volumes NRCS uses when reporting capacity and current reservoir storage. In most cases, NRCS reports usable storage, which includes active and inactive storage. (Revised October 1998)

BASIN/ RESERVOIR	DEAD STORAGE	INACTIVE STORAGE	ACTIVE STORAGE	SURCHARGE STORAGE	NRCS CAPACITY	NRCS CAPACITY INCLUDES
PANHANDLE REGION						
HUNGRY HORSE	39.73	--	3451.00	--	3451.0	ACTIVE
FLATHEAD LAKE	Unknown	--	1791.00	--	1971.0	ACTIVE
NOXON RAPIDS	Unknown	--	335.00	--	335.0	ACTIVE
PEND OREILLE	406.20	112.40	1042.70	--	1561.3	DEAD+INACTIVE+ACTIVE
COEUR D'ALENE	--	13.50	225.00	--	238.5	INACTIVE+ACTIVE
PRIEST LAKE	20.00	28.00	71.30	--	119.3	DEAD+INACTIVE+ACTIVE
CLEARWATER BASIN						
DWORSHAK	--	1452.00	2016.00	--	3468.0	INACTIVE+ACTIVE
WEISER/BOISE/PAYETTE BASINS						
MANN CREEK	1.61	0.24	11.10	--	11.1	ACTIVE
CASCADE	--	50.00	653.20	--	703.2	INACTIVE+ACTIVE
DEADWOOD	1.50	--	161.90	--	161.9	ACTIVE
ANDERSON RANCH	29.00	41.00	423.18	--	464.2	INACTIVE+ACTIVE
ARROWROCK	--	--	286.60	--	286.6	ACTIVE
LUCKY PEAK	--	28.80	264.40	13.80	293.2	INACTIVE+ACTIVE
LAKE LOWELL	--	8.00	169.10	--	177.1	INACTIVE+ACTIVE
WOOD/LOST BASINS						
MAGIC	--	--	191.50	--	191.5	ACTIVE
LITTLE WOOD	--	--	30.00	--	30.0	ACTIVE
MACKAY	0.13	--	44.37	--	44.4	ACTIVE
UPPER SNAKE BASIN						
HENRYS LAKE	--	--	90.40	--	90.4	ACTIVE
ISLAND PARK	0.40	--	127.30	7.90	135.2	ACTIVE+SURCHARGE
GRASSY LAKE	--	--	15.18	--	15.2	ACTIVE
JACKSON LAKE	--	--	847.00	--	847.0	ACTIVE
PALISADES	44.10	155.50	1200.00	--	1400.0	DEAD+INACTIVE+ACTIVE
RIRIE	4.00	6.00	80.54	10.00	80.5	ACTIVE
BLACKFOOT	--	--	348.73	--	348.7	ACTIVE
AMERICAN FALLS	--	--	1672.60	--	1672.6	ACTIVE
SOUTHSIDE SNAKE BASINS						
OAKLEY	--	--	74.50	--	74.5	ACTIVE
SALMON FALLS	48.00	--	182.65	--	182.6	ACTIVE
WILDHORSE	--	--	71.50	--	71.5	ACTIVE
OWYHEE	406.83	--	715.00	--	715.0	ACTIVE
BROWNLEE	0.45	444.00	975.30	--	1419.3	INACTIVE+ACTIVE
BEAR RIVER BASIN						
WOODRUFF NARROWS	--	1.50	57.30	--	57.3	ACTIVE
WOODRUFF CREEK	--	4.00	4.00	--	4.0	ACTIVE
BEAR LAKE	--	--	1421.00	--	1421.0	ACTIVE
MONTPELIER CREEK	0.21	--	3.84	--	4.0	DEAD+ACTIVE

Interpreting Streamflow Forecasts

ntroduction

ach month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise pecified, all streamflovv forecasts are for streamflow volumes that would occur naturally without any upstream fluences. Water users need to know what the different forecasts represent if they are to use the information orrectly when making operational decisions. The following is an explanation of each of the forecasts.

ost Probable (50 Percent Chance of Exceeding) Forecast. This forecast is the best estimate of streamflow olume that can be produced given current conditions and based on the outcome of similar past situations, There a 50 percent chance that the streamflow volume will exceed this forecast value. There is a 50 percent chance at the streamflow volume will be less than this forecast value.

he most probable forecast will rarely be exactly right, due to errors resulting from future weather conditions and e forecast equation itself. This does not mean that users should not use the most probable forecast; it means at they need to evaluate existing circumstances and determine the amount of risk they are willing to take by ccepting this forecast value.

o Decrease the Chance of Having Too Little Water

users want to make sure there is enough water available for their operations, they might determine that a 50 ercent chance of the streamflow volume being lower than the most probable forecast is too much risk to take. o reduce the risk of not having enough water available during the forecast period, users can base their perational decisions on one of the forecasts with a greater chance of being exceeded (or possibly some point in- etween). These include:

70 Percent Chance of Exceeding Forecast. There is a 70 percent chance that the streamflow volume will exceed this forecast value.
There is a 30 percent chance the streamflow volume will be less than this forecast value.

90 Percent Chance of Exceeding Forecast. There is a 90 percent chance that the streamflow volume will exceed this forecast value.
There is a 10 percent chance the streamflow volume will be less than this forecast value.

o Decrease the Chance of Having Too Much Water

users want to make sure they don't have too much water, they might determine that a 50 percent chance of the treamflow being higher than the most probable forecast is too much of a risk to take. To reduce the risk of having too much water available during the forecast period, users can base their operational decisions on one of the forecasts with a smaller chance of being exceeded. These include:

30 Percent Chance of Exceeding Forecast. There is a 30 percent chance that the streamflow volume will exceed this forecast value. There is a 70 percent chance the streamflow volume will be less than this forecas value.

10 Percent Chance of Exceeding Forecast. there is a 10 percent chance that the streamflow volume will exceed this forecast value. There is a 90 percent chance the streamflow volume will be less than this forecas value.

Using the forecasts - an example

Using the Most Probable Forecast. Using the example forecasts shown below, users can reasonably expect 36,000 acre-feet to flow past the gaging station on the Mary's River near Death between March I and July 31.

Using the Higher Exceedence Forecasts. If users anticipate a somewhat drier trend in the future (monthly and seasonal weather outlooks are available from the National Weather Service every two weeks), or if they are operating at a level where an unexpected shortage of water could cause problems, they might want to plan on receiving only 20,000 acre-feet (from the 70 percent chance of exceeding forecast). In seven out of ten years with similar conditions, streamflow volumes will exceed the 20,000 acre-foot forecast.

If users anticipate extremely dry conditions for the remainder of the season, or if they determine the risk of using the 70 percent chance of exceeding forecast is too great, then they might plan on receiving only 5000 acre-feet (from the 90 percent chance of exceeding forecast). Nine out of ten years with similar conditions, streamflow volumes will exceed the 5000 acre-foot forecast.

Using the Lower Exceedance Forecasts. If users expect wetter future conditions, or if the chance that five out of every ten years with similar conditions would produce streamflow volumes greater than 36,000 acre-feet was more than they would like to risk, they might plan on receiving 52,000 acre-feet (from the 30 percent chance of exceeding forecast) to minimize potential flooding problems. Three Out of ten years with similar conditions, streamflows will exceed the 52,000 acre-foot forecast.

In years when users expect extremely wet conditions for the remainder of the season and the threat of severe flooding and downstream damage exists, they might choose to use the 76,000 acre-foot (10 percent chance of exceeding) forecast for their water management operations. Streamflow volumes will exceed this level only one year out of ten.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SF PAYETTE RIVER at Lowman	APR-JUL	329	414	471	109	528	613	432
	APR-SEP	369	459	521	107	583	673	488
BOISE RIVER near Twin Springs (1)	APR-JUL	443	610	685	109	760	927	631
	APR-SEP	495	670	750	109	830	1005	

For more information concerning streamflow forecasting ask your local NRCS field office for a copy of "A Field Office Guide for Interpreting Streamflow Forecasts" or visit our Web page.

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